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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,448	03/01/2004	Yasumitsu Fujino	017849-022	1001

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 02/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/788,448

Applicant(s)

FUJINO ET AL

Examiner

Christopher RoDee

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/1/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12, drawn to a toner, classified in class 430, subclass 110.2.
- II. Claims 13-20, drawn to a method of making a toner, classified in class 430, subclass 137.14.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, such as the process disclosed in Teshima *et al.* in US Patent Application Publication 2002/0160289, the third aspect of the invention, particularly Example 5.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with George Lesmes on 13 February 2006 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Art Unit: 1756

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

Claims 1-12 are objected to because of the following informalities: the instant claims specify that the wax is added to at least one of the coating layer(s) but for the outermost coating layer, and the core particles. A review of the specification shows that the wax is present in the coating layer and/or the core but not the outermost coating layer (see ¶¶ [0023] & [0063]; Examples). The claim as currently phrased is awkward and does require reference to the specification for clarification. Appropriate correction is required in order to improve the readability of the claims.

Claim Rejections - 35 USC §§ 102 & 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1756

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Teshima *et al.* in US Patent Application Publication 2002/0160289.

Teshima discloses a toner in Example 5 having a 6 μm core (i.e., colored resin particles) comprising a styrene-butyl acrylate binder resin, a colorant, a negative charge control agent, and a polywax releasing agent (¶¶ [0163] – [0172]). Two coating layers are formed on the core particles: an inner releasing agent layer comprising the polywax and an outer styrene-acrylic copolymer layer having a Tg of 65 °C (¶¶ [0173] – [0175]). The inner layer has a thickness of 0.006 μm while the outer resin layer has a thickness of 0.18 μm . The total toner particle has a diameter of 6.3 μm . The ratio of the coating layers thickness to that of the core particle is 0.31 (i.e., 0.186 / 6). Examples 6-8 appear to be similarly applicable. As discussed more generally in the specification, the toner has colored resin particles with releasing agent particles dispersed in a binder resin, and encapsulating resin particles fixedly fused to the surface of each colored resin particle to form a resin coating layer thereon, characterized in that each colored particle is coated with a resin coating layer with a releasing agent layer between the core the resin coating layer (¶ [0012]).

The reference does not form the core particles by the same method as specified in the product-by-process limitation of claim 1. However, it appears that the same product is present because the core particles have the requisite size, structure, and components of the instant claims. Further, the colorant appears to be well dispersed into the copolymer binder resin because the masterbatch colorant. Because the Examiner has set forth reasons why the core appears to be the same in the reference as claimed, it is incumbent on applicant to show that the claimed product is necessarily different from that of the applied art. See MPEP 2113.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teshima *et al.* in US Patent Application Publication 2002/0160289.

Teshima was discussed above and that discussion is incorporated here. In addition to the invention's features discussed above, the reference also discloses each colored resin particle is coated with said resin coating layer with the releasing agent is interleaved between them. The resin coating layer has a thickness of 0.05 μm to 1 μm while the releasing agent layer has a thickness of 0.001 μm to 0.01 μm and preferably 0.004 μm to 0.008 μm (§ [0093]). The reference also discloses that the colored resin particles have a size of 3 to 10 μm (§ [0041]).

Although the reference does not appear to identically disclose a toner having the claimed covering layer thickness combined with it would have been obvious to one having ordinary skill in the art at the time the invention was made to produce a toner with a coating layer thickness of about 0.2 μm because the reference specifically discloses a size of 0.18 μm and provides a general disclosed size of from 0.51 μm (0.05 + 0.001) to 1.01 μm (1 + 0.1). Given the broad teachings and the specific examples, the artisan would have found it obvious to give a total covering layer thickness slightly larger than that exemplified as part of the routine experimentation expected of the artisan while still operating within the scope of the invention. Similarly, using a slightly smaller core particle, such as 3 μm , would have been obvious given the specific disclosure of this size for the core particles. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use these suggested core diameters and layer thicknesses while also maintaining the about the same ratio of coating layer thickness to core size as exemplified in the Examples because the artisan would seek to

Art Unit: 1756

optimize the characteristics of the toner using the exemplified toner characteristics as a starting point.

Claims 1-6 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno *et al.* in US Patent 5,204,205.

Anno *et al.* in discloses a toner having a core and two layers (Abstract). The core contains a styrene-acrylic resin or a polyester (Abstract), a coloring agent (col. 10, l. 37-46; Core Particles SI in col. 16), and a releasing agent (col. 16, l. 47-68; note polypropylene). The intermediate and outer layers of Anno contain a styrene-acrylic copolymer(s). The coating layers are no more than 1/5 the thickness of the core particles (col. 14, l. 26-44). Core Particle SIII contains a radically polymerizable acid monomer in an amount of 2 weight percent based on the core resin. See Table 1 for the resin particles used to form the core covering layers. The core has a size of 1 to 20 μm , preferably 3-15 μm (col. 10, l. 66-68).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a polypropylene wax in the core particle of core particle SIII because the reference specifically discloses polypropylene wax as an effective adjuvant in the core and the artisan. The artisan would also have found it obvious to optimize the thickness of the intermediate layer and outermost surface layer on the core at 1/5 that of the core or less because the reference provides guidance that these thicknesses are effective for the toner core. The reference does not form the core particles by the same method as specified in the product-by-process limitation of claim 1. However, it appears that the same product is present because the core particles have the requisite size, structure, and components of the instant claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on most weekdays from 6:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdr
14 February 2006


CHRISTOPHER RODEE
PRIMARY EXAMINER